December 21, 2020

CALFIRE
PUBLIC COMMENT
Re: SILVER ESTATES TIMBER HARVEST PLAN
THP# 1-20-00084-SON

Dear Forest Practice Manager:

We represent The Guerneville Forest Coalition, a coalition of Sonoma County residents who share an interest in the above-referenced timber harvest plan (THP).

The Guerneville Forest Coalition (GFC) and its individual members have already made several comments and raised questions regarding the proposed THP.

This letter contains additional comments, requests, and questions.

1. **WILDLIFE SURVEYS**

   The THP lists numerous endangered, sensitive or threatened species. For most of these species, the THP states that the species in question were “not detected during plan preparation or during wildlife surveys.” The GFC has requested copies of these surveys or information on what was conducted during plan preparation to ensure species were not present (and information on when these activities took place.) CalFire has referred questions on this matter to CDFW. CDFW has referred questions to CalFire. On December 15, 2020, in response to a public records request for wildlife surveys and other information related to sensitive species in the THP, the GFC was informed by CalFire that: "no records exist.”

   The requirements of the Forest Practice Rules (FPR) and CEQA to identify, analyze and mitigate all significant environmental effects of timber operations on species and habitat presuppose the need to conduct surveys of the THP area to determine what wildlife species and habitat may be affected by the timber operations. The lack of available wildlife surveys that are sufficiently clear and detailed to permit adequate and effective review and input by the public is in violation of the FPR and CEQA.

   ➤ **Request to CalFire:**
   - Please require the plan submitter to conduct and make available surveys for all endangered, threatened and sensitive species, including but not limited to the following: Marbled Murrelet, Northern Goshawk, Osprey, Great Blue Heron, Great Egret, Bald Eagle, Peregrine Falcon.
2. **LANDSLIDE HAZARDS**

Sixty of the 224 acres designated for timber harvesting under the Silver Estates THP are located on known landslides, including deep seated and shallow debris flows. Only 15 of the 60 acres located on landslides are excluded from harvest. The remaining 45 acres will be harvested using a site-specific, modified Silviculture. Two areas of concern include the ~22-acre G1 deep-seated landslide complex along Neeley Road and the road failures along Mays Canyon Road associated with shallow debris flows.

Even with the proposed engineering upgrades and the modified Special Treatment Zone Silviculture, harvest activities that remove overstory canopy on landslide-prone areas will enhance soil drying during summer months and increase soil susceptibility to gully erosion during “Atmospheric River” rainfall events. In fact, recent 1-foot topographic contour data provide evidence of steep gully erosion already in progress in areas planned for harvesting along Neeley Road. Enhanced soil instability in these areas could reactivate deep-seated landslides and pose a serious risk to nearby infrastructure and the community in the post-harvest landscape (PHL).

As background, according to the USGS geologic map, the Silver Estates THP is located on Tertiary-Cretaceous Franciscan Formation sandstone. Due to the deformed and fractured nature of this geologic unit, landslides and debris slides are common. The Sonoma County Department of Agriculture landslide base map indicates a ~ 25-acre landslide on the north flank of Neeley Hill.

Local residents have provided considerable evidence of recent (< 5 yr.) soil instability along Neeley Road during winter storms including foundation damage, mudslides, and fallen trees.

An independent geologist, Vic Madrid PG, CHg, has presented an alternative interpretation of the LIDAR bare earth imagery of Neeley Hill. His interpretation presents a deep-seated, rotational landslide with a steep eroded lobate toe (Neeley Road Landslide Complex, NRLC). The NRLC differs from THP area G1 in terms of location and extent of unstable soil.

Catastrophic failure of the NRLC during a winter storm or an earthquake could trap local residents who rely on Neeley Road as their only escape route.

➤ **Request to CalFire:**

Please consider excluding ~30 acres of the NRLC from the proposed timber harvest to help mitigate this geologic hazard, reduce future risk of damage to Neeley Road, and minimize risk to public safety.

3. **POST-HARVEST FIRE RISKS**

The THP Section Four Cumulative Impact Assessment (CIA) does not adequately protect Guerneville residents regarding Wildfire hazard and risk.

Here are the main components of a long-term Wildfire hazard and risk assessment from a Guerneville resident perspective:

- Temporal scale: 0-25 years following the harvest
- Spatial scale: ≤ 2.5 km from THP boundary (see map below)
- Boundary type: Wildland-urban interface
- Fire Hazard Severity rating: very high
- Fuel model: Timber Understory with high fuel load
- Overstory Canopy Cover: 80-95%
- Surface Fuel: moderate to high spreading rate
- Ladder Fuel density: moderate
- Future climate trends:
  - Summer: hotter, drier
  - Fall: increase in Red Flag Warning days
  - Winter: "Atmospheric River" rainfall events

The appropriate spatial scale to assess wildfire and geological hazards risks is shown in Figure A below.

Figure A

According to the THP, nearly all of the ground and ladder fuels will remain in place. THP Section Four (Cumulative Impact Assessment: page 199, Wildfire Risk Hazard Finding (10/20/20 revised) states that the "surface fuel management plan" will be to "spread the slash throughout the stand...” See Figure B below.

Although the THP claims to “space” the harvest according to Forest Practice Rules, it is difficult for Guerneville residents to accept that removal of protective overstory canopy to the extent planned will not increase fire hazard and risk or alter wildfire behavior. In addition to exposing unstable soil to gully erosion during “Atmospheric River” rainfall events, canopy removal will increase forest litter drying during summer months, especially under continued drought and global warming conditions, leading to increased landslide potential and wildfire risk.
Figure B

8. Fire Prevention and Protection

A. Wildfire Risk and Hazard

Fire is an integral part of California’s forested ecosystems, and as such is always a factor that must be considered while managing California forestlands. This analysis seeks to assess the fire risk of the plan area both before and after harvest operations and characterize the fire risk going forward into the future.

1. Fire Severity Zoning

The Fire Hazard Severity Zone for the project area is high according to the Sonoma County Fire Hazard Severity Zone Map.

2. Existing and probable future fuel conditions including vertical and horizontal continuity of live and dead fuels

The THP silviculture (Selection, Group Selection, and Transition) will not significantly increase the risk of increased horizontal and/or vertical continuity or forest fuel loading. Trees to be harvested will be spaced and slash will spread throughout the stand. The plan area fire fuel conditions are typical of Sonoma county timberlands of the Redwood, Douglas-fir, and oak woodland types with a high amount of fuels as a result of past land uses associated with grazing, clearcut timber harvests, and fire suppression. The harvest area has been previously harvested, and some areas of the plan were repeatedly burned to allow for livestock grazing. The areas have since reforested and much of the plan area has been

Figure C below provides further justification for the Guerneville resident wildfire hazard and risk perspective from the US Dept. of Agriculture (USDA) “A Wildfire Risk Assessment Framework for Land and Resource Management” by Joe H Scott, Matthew P Thompson, and David E Calkin, General Technical Report RMRS-GTR-315 October 2013. Note emphasis on spatial dependence of wildfire risk and reference to Highly Valued Resources and Assets, i.e. Guerneville homes and businesses.
The following excerpt from “The Myth of “Catastrophic” Wildfire, A New Ecological Paradigm of Forest Health by Chad Hanson, John Muir Project Technical Report 1 Winter 2010 (www.johnmuirproject.org) further supports the Guerneville resident perspective:

Moreover, most “thinning” projects allow removal of many of the larger trees in order to make the projects economically attractive to logging companies, and to generate revenue for the public land management agencies, such as the U.S. Forest Service. Where this is done near homes, it can increase the danger of structures burning. The removal of larger, mature trees in thinning operations tends to increase, not decrease, fire intensity by: a) removing large, fire-resistant trees; b) creating many tons of logging “slash” debris – highly combustible branches and twigs from felled trees; c) reducing the cooling shade of the forest canopy, creating hotter, drier conditions on the forest floor; d) accelerating the growth of combustible brush by reducing the mature trees that create the forest canopy, thereby increasing sun exposure; and e) increasing mid-flame windspeeds (winds created by fire) by removing some of the mature trees and reducing the buffering effect they have on the winds associated with fires (Hanson and Odion 2006, Platt et al. 2006). The scientific evidence clearly indicates that, where it is important to reduce potential fire intensity (e.g., immediately adjacent to homes) this can be very effectively accomplished by thinning some brush and very small trees up to 8 to 10 inches in diameter.

**Request to CalFire:**
Please revise THP Section Four Cumulative Impact Assessment to reflect the above concerns and require that a comprehensive surface fuel management plan be included and implemented in the THP to address these concerns.

4. **SOIL EROSION HAZARD RATING/SILVICULTURE**

Section Four of the THP’s Cumulative Impact Assessment (CIA) underestimated soil erosion hazard because it used an outdated value for the “Extreme” 2-year rainfall intensity for Guerneville and the THP area.

This error underestimated the local rainfall intensity and resulted in an erroneous “moderate” rather than “high” soil erosion hazard designation for large sections of the THP, including portions of G1, the deep-seated landslide complex along Neeley Road. This is especially troubling as the “high” hazard areas include planned timber harvesting on most of the deep-seated landslide complex that often has a 51-70% slope.

Despite the change in hazard rating, the silviculture methods that are normally associated with a "high" hazard rating have not been proposed. Silviculture methods have been left unchanged and thus do not reflect the elevated risks within this THP.

**Requests to CalFire:**
- Please provide your rationale for not adjusting the silviculture methods in areas with a “high” hazard soil erosion rating.
- Please explain why Group Selection is being proposed in areas, including G6, which are now deemed “high” hazard for soil erosion.

5. **WATER QUALITY**

Section 303(d) of the Federal Clean Water Act authorizes the EPA to assist states, territories and authorized tribes in listing impaired waters and developing Total Maximum Daily Loads (TMDLs) for these waterbodies. A TMDL establishes the maximum amount of a pollutant allowed in a waterbody and serves as the starting point or planning tool for restoring water quality.

The Russian River between Guerneville and Monte Rio is on the Section 303(d) impairment list.

**Questions to CalFire:**
- What post-harvest long term monitoring plan is in place to ensure Water Quality Objectives (WQOs) specified by the Regional Water Quality Control Board are met?
- Is there a reporting plan in place to ensure that runoff from the harvested area into the Russian River meets TMDL standards for sediment and Water Quality Objectives for organic loading?
6. **SCENIC HIGHWAY 116**

Highway 116 in Sonoma County was Officially Designated a Scenic Highway on September 20, 1988, and the area around Highway 116 was designated a Scenic Corridor. Both the State of California and the County of Sonoma made these official designations. The boundaries of the Scenic Corridor in the area around Guerneville are shown on page 38 of the Final Report of the Sonoma 116 Scenic Highway Corridor Study (“Final Report”):


A snapshot of this page is shown below:

![Map of Guerneville and Monte Rio](image)

Protections Afforded by the State and County
The Final Report outlines a series of protections afforded by the State and protections afforded by the County. These are listed on pages 26-32 in the Final Report. The THP does not explicitly address each and every one of these protections.

➤ **Request to CalFire:**
  - Please update the THP to address each and every protection listed in the Final Report.

The Final Report on page 26 states that the [California] “Department of Transportation is committed to minimizing tree removal that is not essential to providing public safety.” The THP fails to itemize each and every tree that it plans to remove, and fails to provide a reason why the removal of each tree on its own is essential for providing public safety.

➤ **Request to CalFire:**
  - Please update the THP to address how each and every individual tree removal is essential for providing public safety.
Also, the Final Report on page 26 states that “In an effort to minimize tree removal and any extensive grading work, CalTrans will carefully review the operation and safety requirement before considering any tree removal”. But, the THP does not address having CalTrans carefully review the operation and safety (both community safety and personnel safety) requirement of the tree removal in the part of the THP that lies within the Scenic Corridor.

➤ Requests to CalFire:
- Please update the THP to address how CalTrans will be reviewing any tree removal within the Scenic Corridor for all of the unknown number of acres that are in the Scenic Corridor.
- Please enlist CalTrans to conduct a full Environment Impact Report (EIR) on the part of the THP that lies within the Scenic Corridor (including but not limited to animals, plants, trees, endangered species, waterways, scenic view shed, visual assessment, soil stability, etc.)

The Final Report on page 29 states as County Objective SH1.3: “Trees within the Highway 116 right-of-way, as established by CalTrans maps of State right-of-way ownership, shall be preserved unless it can be established that tree cutting is necessary to assure public safety or that trees are not healthy enough to survive. Final determination of tree removal within the CalTrans right-of-way will be made by CalTrans.”

➤ Requests to CalFire:
- Please update the THP to reflect any final determination that has been made by CalTrans.
- Please update the THP to explain how removal of each and every tree within the boundary of the Scenic Highway is necessary for public safety or how each and every tree is not healthy enough to survive.

Lack of Clarity
Page 191 of the THP states that: “The closest distance that significant numbers of people can view the proposed timber operations is approximately 1,000 feet.”

➤ Requests to CalFire:
- Please define “significant numbers of people.”
- Please provide more specificity with regards to the term “approximately 1,000 feet.” Is this 1,000 feet plus or minus 500 feet or is it 1,000 feet plus or minus five inches?
- Please update the THP to include an exact measurement of every viewable location possible to determine the closest distance of all possible viewing distances, and include how the measurement was made (e.g. surveyor methods, etc.).
- Please define “timber operations.” For example, would this include a logging truck driving on Neeley Road?

Monitoring and Violations
The THP does not specify repercussions in the event that there is a violation of protections afforded by the Scenic Corridor designation. Moreover, given the Scenic designation of this corridor, heightened monitoring of possible violations would be prudent, not only to preserve the Scenic Corridor as described in the Final Report, but also for public safety.
The GFC recommends daily monitoring for violations that impact the view shed from every vantage point in the area, but especially the areas designated by number or letter on the page 38 map of the Final Report.

➤ Requests to CalFire:
- Please update the THP to specify the frequency of view shed violation monitoring and identify an independent third-party to conduct such monitoring.
- Please describe how violations will be addressed and redressed.

7. THE CLAR TREE

The Clar Tree is a residual old growth Redwood tree believed to be approximately 345 feet tall, 18 feet in diameter, and estimated to be nearly 2,000 years old. It is the tallest tree in Sonoma County, one of the tallest trees in California, and the tallest tree in the world still held in private hands. For purposes of comparison, within Armstrong Woods State Park, Guerneville, CA, the tallest redwood tree is 310 feet in height (Parson Jones Tree) and the oldest Redwood is estimated to be 1,400 years old (Colonel Armstrong Tree).

As required by the California Department of Fish and Wildlife in their Flood Prone Area Pre-Consultation letter (May 7, 2020), the Clar Tree shall be retained as a “wildlife tree” with a permanent 75 foot no-cut border established around the tree for the life of the THP. These requirements appear to have been added as an asterisk within Section 2, on page 77 of the THP, as shown:

**Listed and Sensitive Animal Species Table**

<table>
<thead>
<tr>
<th>Animal Species</th>
<th>Listed Plant or Animal Species Including Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Spotted Owl</td>
<td>Threatened / Invertebrate</td>
</tr>
</tbody>
</table>

Northern Spotted Owl

- Threatened
- Invertebrate

Protection measures

- No cut border
- Monitoring

Note: LTO:
1. Operations shall occur only after mutual agreement and consultation with the local forest management group.
2. Surveys shall be conducted and documented in accordance with the local forest management group.
3. Surveys shall be conducted and documented in accordance with the local forest management group.
4. Surveys shall be conducted and documented in accordance with the local forest management group.
5. Surveys shall be conducted and documented in accordance with the local forest management group.
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8. Surveys shall be conducted and documented in accordance with the local forest management group.
9. Surveys shall be conducted and documented in accordance with the local forest management group.
10. Surveys shall be conducted and documented in accordance with the local forest management group.

Also, please refer to the attached maps and the THP for additional information.
The GFC believes that, while the addition of a 75 foot no-harvest buffer zone is commendable, it is not biologically adequate to protect the Clar Tree. Listed below are just several considerations that support expanding the buffer zone beyond 75 feet:

**General Considerations**

1) **Square Footage of the No-Cut Buffer or Protection Zone:** The area around the Clar Tree’s prescribed buffer zone, employing a 75 foot radius, totals 17,671 sq ft. By contrast, a square acre totals 43,560 sq ft. In effect, the buffer zone, as currently envisioned, is only 0.4056 of one acre in size (17,671 ft²/43,560 ft²). On face value alone, a no-cut buffer zone of 4/10th of one acre to protect a 345 feet tall, old-growth Redwood seems oddly arbitrary and insufficient.

2) **There is precedent or best practice for creating larger no-cut buffer zones around existing ancient Redwood trees here in California.** For example, a review of public information notes that, in 1999, a conservation easement was established to protect the Luna Redwood, a 600 year-old ancient old-growth redwood, located in Humboldt County. As part of the agreement, a 200 foot (61 meter or nearly 3-acre) buffer zone was placed around the Luna Redwood. In addition, the buffer zone permanently protects all trees within the buffer zone. Although the Luna Redwood is not as tall nor as old as the Clar Tree, the establishment of 200 foot buffer zone for the Luna Redwood is a good starting point for protecting the much larger and much older Clar Tree.

➤ **Request to CalFire:**
- Please provide your assumptions/models/notes that support the present 75 foot no-cut buffer zone around the Clar tree.

**Morphological Considerations**

1) **Clar Tree Stability and Susceptibility due to High Winds and Floods:** Normal size Redwood “...trees have shallow root systems that extend over one hundred feet from the base, intertwining with the roots of other Redwoods. This increases their stability during strong winds and floods.” (Source: California Department of Parks and Recreation.) The Clar Tree is believed to be one of the 25 largest old growth Redwoods in the US. It deserves significant deference and additional consideration beyond what is provided to normal sized Redwoods when protecting against strong winds and floods. The tree also exists within a Flood Prone Area as determined by the Department of Fish and Wildlife. Consequently, the present 75 foot buffer zone appears insufficient to protect this extremely tall tree from strong winds and floods.

2) **Clar Tree Root System and Interconnectiveness of Surrounding Trees:** “Mature Sequoia tress have extensive root systems that may extend outward from the trunk up to 200 feet [emphasis added].” (Source: Embeck, The Enduring Giants, University of California, 1976). In addition, “...a single root may grow out near the surface for as much as 200 or 300 feet [emphasis added] toward water.” (Source: National Park Service, Description of the Giant Sequoia.) Importantly, Redwoods thrive in thick groves, where the roots can interconnect and even fuse together, forming a network of trees that are dependent on each other for nutrients. “Some species, such as Coast Redwoods can root-graft with other of their kind, sharing nutrients, stabilizing each other and reducing the stress on each individual tree.” (Source: Harris, Clark, and Matheny: Agriculture, 4th edition.) Logging trees – especially other Redwood trees - outside of the diminutive no-cut buffer zone could significantly harm the living root system and viability off the Clar Tree and other Redwoods. Consequently, the current buffer zone of 75 feet is not adequate to protect the symbiotic root structures shared by the
Clar Tree and necessary living (not cut) trees contiguous to this ancient tree. There is no evidence that the proposed 75 foot buffer zone is sufficient to adequately protect the Clar Tree.

➤ Request to CalFire:
- Please explain how a 75 ft buffer zone will protect and not harm, put at risk, or jeopardize the structural root support and interconnected health of the Clar Tree and trees nearby.

Fire Consideration
1) Redwood Groves/Stand Provide a Natural Fire Resilience: It is commonly agreed that Redwoods, of all species of trees, are considered to resist severe burning. This is why it is important to keep mature Redwoods and to allow stands of Redwoods to grow to maturity, making the area “...relatively resistant and resilient to fire when compared to younger stands.” (Source: Franklin, J.F., D.A. Perry, R. Noss, D. Montgomery and C. Frissell. 2000.) In addition, studies have found that fires burn more intensely in forests that have been logged. Unfortunately, the recommended 4/10th of one acre no-cut buffer zone does not protect the Clar Tree from the risk of fire or the degradation caused by fire. Consequently, the current no-cut buffer zone of 75 feet needs to be significantly expanded. In addition, the silviculture method planned for the adjacent area surrounding the buffer zone should be revised to “restorative” and, among other things, exclude the logging of existing Redwood trees outside of the no-cut buffer zone.

➤ Request to CalFire:
- Please, provide your assumptions/models/notes that the 75 foot no-cut buffer zone is sufficient to protect the Clar Tree against fire.

Biological and Botanical Surveys
1) Jacobszoon and Associates, Inc. conducted both animal and plant surveys as part of the THP application process. In addition, on July 24, 2020, a pre-harvest inspection (PHI) was completed based on these surveys and onsite analysis. On August 5, 2020, the CDF&W provided PHI recommendations in a memo to the CalFire Forest Practice Program Manager. In neither the THP nor the CDF&W PHI memo is there any review or narrative on the wildlife and botanical attributes associated with the historic Clar Tree.

As a result, the GFC believe both biological and botanical surveys pertaining to the 224-acre THP have failed to take into account the biodiversity associated with this tree. While such surveys may be sufficient for most THPs, the existence of the Clar Tree requires an additional duty of care and responsibility.

➤ Requests to CalFire:
- Please provide your assumptions/models/field notes/conclusions that demonstrate that the botanical and biological surveys specifically analyzed the sui generis nature of the Clar Tree.
- Please provide your assumptions/models/field notes/conclusions, timing and stations that demonstrate that wildlife surveys specifically analyzed possible Townsend and Pallid bat populations within the Clar Tree.
8. **RESTATEMENT OF THE SILVER ESTATES THP**

It is impossible for professionals and laypersons to determine what is accurate and current within the public record. As a result, the nearly 500-page THP needs to be restated in its entirety to provide all parties needed certainty and to eliminate legal ambiguity.

As of October 4th, 2020, on CalFire’s website, there were approximately eight 1st Review Attachments, seven Harvest Documents, one Notice of Filing, seven PHI Attachments, one Pre-Approval Geo Ref., one Return Letter, and one RPF Questions. Among these documents are 16 THP Multi Agency Reviews and Recommendations with attachments, many of which require changes to the THP in form and/or substance. To compound matters, timely responses to some of the agency reviews cannot be located, including many of the wildlife surveys. There are changes regarding use of herbicides, inclusion of special treatment zones, discovery of wet areas, silviculture revisions, inclusion of a no-cut zone, the discovery of landslide areas, modifications of the Soil Erosion Hazard Ratings, confusion surrounding ultimate responsibility for repairs to a culvert deemed a public hazard, and even a THP adjustment to log one individual redwood tree. Lastly, there are over 220+ public comments which often raise legitimate concerns that need to be addressed within the THP itself rather than by way of a memo or addendum.

➤ **Request to CalFire:**
- Due to the significant number of changes, corrections and revisions, and incomplete issues, the approximate 500-page THP is no longer transparent or informative and should be restated in its entirety. Informed decision, as required under CEQA, is not possible given the current haphazard and inefficient method of making all these documents available to the public.

9. **CONCLUSION**

Thank you for your consideration of these comments. We look forward to your responses to the GFC’s requests and questions and the continued involvement of the GFC as this project moves forward.

Very truly yours,

Noreen M. Evans

Noreen M. Evans, Esq.
Public Comment ID: 20PC-000000580
Comment Received Date: 12/20/2020
Comment for Plan Number: Enter plan number manually
County: Sonoma
Closest City: Guerneville
Email to Notify for Official Response: noreen@evanskingsbury.com

Comment:
See attached letter from Guerneville Forest Coalition